APPEAL BRIEF

Katherine R. Vieyra
Attorney for Appellants
Registration No. 47,155

SCULLY, SCOTT, MURPHY & PRESSER, P.C.
400 Garden City Plaza, Suite 300
Garden City, New York 11530
(516) 742-4343

TABLE OF CONTENTS

<u>IN THE UNITED STATES PATENT AND TRADEMARK OFFICE</u>

Applicant:	Michael J. Rojas	**Examiner:**	Rutao Wu
Serial No:	09/808,436	**Art Unit:**	3639
Filed:	March 14, 2001	**Docket:**	13463

For: METHOD AND PROGRAMMABLE DEVICE FOR
TELECOMMUNCIATIONS APPLICATIONS

Confirmation No.: 3775		**Dated:**	December 26, 2006

Mail Stop Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

<u>APPEAL BRIEF</u>

Sir:

Pursuant to 35 U.S.C. § 134 and 37 C.F.R. § 41.37, entry of this Appeal Brief in

support of the Notice of Appeal filed August 24, 2006 in the above-identified matter is

respectfully requested. This paper is submitted as a brief setting forth the authorities and

arguments upon which Appellants rely in support of the appeal from the Final Rejection of

Claims 1-7 in the above-identified patent application on April 19, 2006.

I. <u>REAL PARTY IN INTEREST</u>

The real party of interest in the above-identified patent application is NEC

Corporation of America.

1

II. **RELATED APPEALS AND INTERFERENCES**

There are no pending appeals or interferences related to this application to Appellants' knowledge.

III. **STATUS OF CLAIMS**

Claim 1 stands rejected based on 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,338,046 to Saari et al. (hereinafter "Saari").

Claim 2 stands rejected based on 35 U.S.C. § 102(e) as being anticipated by Saari.

Claim 3 stands rejected based on 35 U.S.C. § 102(e) as being anticipated by Saari.

Claim 4 stands rejected based on 35 U.S.C. § 102(e) as being anticipated by Saari.

Claim 5 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Saari in view of U.S. Patent No. 6,418,467 to Schweitzer et al. (hereinafter "Schweitzer").

Claim 6 stands rejected based on 35 U.S.C. § 102(e) as being anticipated by Saari.

Claim 7 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Saari.

Claim 8 is withdrawn.

Claims 1-7 are appealed; a clean copy of these claims is attached hereto in the Claims Appendix.

IV. **STATUS OF AMENDMENTS**

No amendment was filed in Response to the Final Rejection mailed April 19, 2006.

V. **SUMMARY OF CLAIMED SUBJECT MATTER**

Claims 1-7 are the claims on appeal. A copy of the rejected claims is attached hereto in the Claims Appendix.

The invention with respect to Claim 1 comprises a method for cost accounting of data usage over a network by network users, the network having a plurality of internal IP addresses and access to a plurality of external IP addresses over the Internet, the method comprising the steps of: (a) detecting data packets (page 7, lines 6-9) having a source and destination IP address (page 6, lines 29 – page 7, line 1) moving over the network (page 8, line 23); (b) classifying the detected data packets based on the source and destination IP address (page 7, lines 11-21); (c) assigning the classified data packets to a network user (page 10, lines 5-22); (d) costing the classified data packets based on a predetermined costing scheme (page 8, line 29 – page 9, line 11); and (e) accumulating and storing the costed data packets based on the assigned user (page 11, lines 16-17).

The invention with respect to Claim 5 comprises the method of claim 1, wherein the costing step d) includes a filtering process to exclude certain predetermined data packets from the costing step (page 9, lines 17-20).

The invention with respect to Claim 7 comprises a programmable device for cost accounting of data usage over a network by network users, the network having a plurality of internal IP addresses and access to a plurality of external IP addresses over the Internet, the device comprising a network controller (page 8, line 11, #22) for interfacing with the network and detecting data packets (page 7, lines 6-9) having a source and destination IP address (page 6, line 29 – page 7, line 1) moving over the network (page 8, line 23); a processor (page 8, line 12, #12) having a content-addressable memory (page 8, lines 12-16, #24), the processor (page 8, line 12, #12) classifying the detected data packets based on the source and destination address (page 7, lines 11-21) and assigning the classified data packets to a network user (page 10, lines 5-22) by matching the source and destination addresses against a cross-reference table of IP addresses

3

to network users (page 9, lines 10-11) stored in the content-addressable memory (page 8, lines 12-16, #24), the processor (page 8, line 12, #12) costing the classified data packets based on a predetermined costing scheme (page 8, line 29 – page 9, line 11); and a dynamic random access memory (page 6, line 13, #16) for accumulating and storing the costed data packets based on the assigned user (page 11, lines 16-17).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-4 and 6 are rejected under 35 U.S.C. § 102(e) as being anticipated by Saari. Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Saari in view of Schweitzer. Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Saari.

VII. ARGUMENT

(A) Examiner's Rejection Of Independent Claim 1 Is Not Proper.

(I) Reference Does Not Teach "classifying the detected data packets based on source and destination IP address".

Appellant submits that Saari does not teach "classifying the detected data packets based on the source and destination IP address" as recited in claim 1.

Saari discloses a system and method for charging for usage of <u>network service connections</u>, that is, for charging a user based on his use of various network resources as his data travels through the network. Such resources include nodes which facilitate the transfer of information from a source location to a destination location, ATM traffic parameters, traffic flow parameters, and other service factors (column 2, lines 2-6, column 4, lines 33-35). Saari's method is implemented using a billing cell which contains billing and connection (network

4

resource) information. The billing information is produced from this billing cell (column 2, lines 4-7). "The node computes the cost of using the connection based on the billing and connection information copied from the billing cell." (Column 2, lines 15-17). Saari further discloses that information is collected so that a billing unit can generate billing information based on the billing cell contents and the charging strategy (column 7, lines 10-12). However, Saari does not teach or suggest any method or technique regarding charging strategies but instead states that different network operators can implement charging strategies (column 4, lines 21-23). Thus Saari does not enable one skilled in the art to manipulate or process the information within the billing cells; these tasks are left to the network operators and their charging strategies.

Further, while Saari discloses that many factors could be used as variables within the charging formula (column 4, lines 31-34), he does not disclose or suggest classifying the variables as part of his procedure, particularly not according the classification variables of source or destination IP address as recited in the present claims of the application. For example, Saari does not suggest combining, grouping, sorting or otherwise manipulating the billing cells in a way that would necessitate their being classified. Instead, Saari states that the relevant charging information acquired by the billing unit from the billing cell is only used to compute the cost of connection usage (column 5, lines 47-48).

By contrast, in applicant's invention, a user is charged based solely on the source IP address and the destination IP address. No tracking of network resources is needed as use of these resources is not included in the cost accounting process. Thus, independent claim 1 of the present invention recites the step of classifying the detected data packets based on the source and destination IP address. By classifying the data packets based on source or destination IP address, as opposed to network connections as disclosed in Saari, applicant's inventive method enables

5

charges for usage to be determined by the categories of source-to-destination addresses. Applicant's method is not concerned with the route or path the data followed while moving from source to destination, nor it is concerned with resources used by the data during its travels. Accordingly, the method does not track or charge for the use of various network resources such as nodes or traffic patterns, as Saari does. This simple classification and charging method recalls the traditional voice or telephone paradigm, with which users are familiar. The straightforwardness of this method results in less user confusion about bills and billing rates, and provides an improvement over the billing techniques of the prior art.

The Examiner states that Saari discloses that a user can set the service class, and that it is inherent since each network device has an IP address, then the data transferred can be classified based on the source address transferring to the destination IP address. (Office Action mailed April 19, 2006, page 3, lines 6-18). In Saari, the service class is set by setting the rt/nrt service class bit of the cell header (column 12, lines 65-67), or by performing a table look up procedure (column 13, lines 5-11). The Examiner contends that it is inherent that Saari teaches classifying the detected data packets based on the source and destination IP address. Applicant disagrees.

The table look up procedure of Saari does not explicitly or inherently disclose the classifying procedure of applicant's invention. Table look up, as known to one skilled in the art, is a procedure for searching for data in a preexisting "table" or data structure. A data structure must be created, populated and stored prior to the execution of a table look up. At best, one might determine from Saari that it is potentially possible that, prior to the operation of Saari's system, a data structure was created containing source and destination IP addresses, such that during the operation of Saari's system, information about the data packets can be obtained or "looked up" in a table. However, Saari's disclosure of a table look up procedure regarding the

6

real time connection of packets does not anticipate the present application's recitation of classifying the detected data packets moving over the network based on the source and destination IP address.

"Inherent anticipation requires that the missing descriptive material is 'necessarily present', not merely probably or possibly present, in the prior art." *Rosco, Inc. v. Mirror Lite Company*, 304 F.3d 1373, 1380 (Fed. Cir. 2002). In *Rosco*, the court held that a patent for a school bus mirror did not inherently anticipate defendant's vacuum thermoforming process because there was no evidence in the record to support a finding that one skilled in the art would read the bus mirror patent as showing a mirror of varying radius of curvature along the major axis. *Id.* at 1381.

Similarly, the Examiner provides no evidence that one skilled in the art would read Saari as showing classifying the detected data packets based on the source and destination IP address. As discussed above, applicant submits that one skilled in the art would not read Saari as showing this feature. Accordingly, applicant respectfully requests that the Board withdraw this rejection of independent claim 1.

(II) Reference Does Not Teach "Assigning the classified data packets to a network user".

Applicant submits that Saari does not teach "assigning the classified data packets to a network user" as recited in independent claim 1. As recited in claim 1, the data packets are classified based on source and destination IP address.

As discussed above, Saari discloses a system and method for charging for usage of network service connections using a number of nodes which contain billing cells having billing and connection information (column 2, lines 3-10). Saari further discloses transmitting a billing

7

g\nec\G:\NEC\1381\13463\amend\13463.appeal brief.doc

cell to a user (column 7, lines 18-19), but does not disclose or suggest assigning user information within the billing cell, as the present application claims.

By assigning the classified data packets to a network user, the present invention enables portability and accuracy in cost accounting. A network user is assigned an IP address using a "network logons-to-IP addresses" table (page 10, line 21). Thus, a network user is charged not according to his physical location but instead based on the IP address associated with his or her logon when he or she logs on to the network, making the user's charges more accurately reflect the user's actual usage. This is an improvement not found in the prior art. The Examiner does not refute this argument. Withdrawal of the rejection to the independent Claim 1 is, therefore, respectfully requested.

(B)   Rejection of Dependent Claims is Also Improper

(I)   Claims 2-4 and 6 are Patentable Based Upon Dependency From Independent Claim 1.

Appellant respectfully submits that Claims 2-4 and 6 are patentable over the cited prior art based upon at least the analysis provided above. Specifically, Saari fails to teach, suggest, or render obvious each and every limitation of independent Claim 1, from which Claims 2-4 and 6 depend.

Withdrawal of the rejection to the dependent Claims 2-4 and 6 is, therefore, respectfully requested.

(C)   Rejection of Claim 5 is Also Improper

(I)   References Do Not Teach "a filtering process to exclude certain predetermined data packets from the costing step".

Applicant respectfully submits that neither Saari nor Schweitzer teach or suggest "a filtering process to exclude certain predetermined data packets from the costing step" as recited in claim 5.

The Examiner states that Saari does not disclose a filtering process that excludes certain data from being included in the costing step, but contends that Schweitzer discloses data merges to remove redundant data (Office Action of April 19, 2006, page 5). Schweitzer discloses a merge process which is "achieved by matching some of the fields in a data record and then merging the matching records from at least two record flows, *transforming them into one record* before updating the central database" (column 9, lines 33-36, emphasis added). Thus Schweitzer discloses a merge process that identifies and discards duplicates to <u>enhance the efficiency of the data repository</u> (column 9, lines 24-26, underline added). Further, Schweitzer teaches merging data by determining whether an "input" data record matches any other data record in the data repository, and, if a match is found, the data record in the repository is transformed. The result of this merging process is that the data repository is not unnecessarily expanded because duplicates are not added to the repository as new records, but instead relevant information from each duplicate is added to its matching record in the repository. At best, the merge process does not <u>increase</u> the number of records in the data repository. However, the number of records in the repository cannot be <u>decreased</u> by the merge process. As one skilled in the art knows, the result of a merge process is a new file with at least the same number of records found in the larger of

9

the two original files; this result is an aspect of merging that is significantly different from filtering.

Applicant's invention includes the step of <u>filtering</u> data, defined as a "filter process is used to <u>eliminate</u> or apply special costing to <u>certain</u> types of <u>data packets</u>." (page 9, lines 17-18, underline added.) Applicant does not recite performing a data merge to maintain or increase the number of data packets sent to the costing step, but instead recites the step of "filtering data", that is, excluding or removing certain types of data packets from the costing step, so that the number of data packets is fewer than before the filtering process began, that is, the number of data packets is decreased. Thus, the filtering process that lessens the number of data packets in the costing step is distinct from a merging procedure to manage the amount of data added to a data repository. Applicant's invention includes this filtering step, which is not found in the art of record in the application.

The Examiner states that applicant agrees that Schweitzer discloses a filtering process to remove redundant data (Office Action mailed April 19, 2006, page 4) but this is not the case. As discussed above, Schweitzer discloses a merging process to remove redundant data from a data record, not from the data repository; this merging process is not a filtering process. The merging process results in, *inter alia*, the same number of records, or more, in the data repository, while a filtering process would decrease the number of records in a data repository. Therefore, the merging process of Schweitzer is <u>not</u> the same as applicant's filtering process, and applicant does not state otherwise.

As explained above, neither of the references cited by the Examiner recognize the advantage of filtering to eliminate predetermined data packet types as disclosed in the present invention. Therefore, Saari et al. and Schweitzer et al., even taken together in combination, do

not disclose or suggest the recitations of claim 5. Applicant respectfully requests that the Board

withdraw the rejection of claim 5.

(II) Claim 5 is Patentable Based Upon Dependency From Independent Claim 1.

Appellant respectfully submits that Claim 5 is patentable over the cited prior art based

upon at least the analysis provided above (see Argument A). Specifically, Saari fails to teach,

suggest, or render obvious each and every limitation of independent Claim 1, from which Claim

5 depends. Schweitzer does not cure this deficiency. Schweitzer discloses a network accounting

and billing system and method in which network related information sources such as traffic

statistics provided by routers, switching hubs, and application server access logs can be

accumulated in a central database (column 2, lines 19-24). Schweitzer does not disclose or

suggest detecting data packets and further does not disclose either "classifying the detected data

packets based on the source and destination IP address" or "assigning the data packets to a

network user". Thus the hypothetical combination of Saari and Schweitzer does not disclose or

suggest each and every limitation of claim 5. Withdrawal of the rejection to the dependent

Claim 5 is, therefore, respectfully requested.

(D) Rejection of Independent Claim 7 is also Not Proper

(I) Reference Does Not Teach "a programmable device for cost accounting".

The Examiner states that Saari does not disclose a programmable device for cost

accounting that is comprised of a network controller, a processor and a dynamic random access

memory (Office Action mailed April 19, 2006, page 6). As discussed above, Saari discloses a

system for charging for usage of network service connections, such as network resources

including nodes. Without the programmable device for cost accounting, however, Saari does not

11

disclose all of the features of the present invention. As the Examiner states, Saari does not suggest this feature.

"When obviousness is based on a particular prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference." *B.F. Goodrich Co., v. Aircraft Braking Systems Corp.*, 72 F.3d 1577, 1582 (Fed. Cir. 1996). The Examiner's contends that the node of Saari is structurally the same as the programmable device of the present invention. The Examiner supplies no teaching or suggestion in Saari to modify its teachings of a node with a processor that can perform the functions of the billing unit, i.e., process billing information. Specifically, no teaching to modify the node of Saari to include a programmable device for cost accounting which includes a network controller, a processor and dynamic random access memory is presented by the Examiner. Significantly, one skilled in the art would not expect a node or processor that processes billing information to include a network controller because controlling the network is not relevant to, and requires different functionality from, processing billing information. The Examiner proffers no suggestion that Saari would modify its node in such a fashion.

Thus, Saari does not teach or suggest the programmable device recited in claim 7. Accordingly, applicant respectfully requests that the rejection of claim 7 be withdrawn.

(II)   Reference Does Not Teach "classifying the detected data packets" or "assigning the data packets to a network user".

Applicant submits that Saari does not teach either "classifying the detected data packets" or "assigning the data packets to a network user" as recited in claim 7 (see Argument A above). Applicant respectfully submits that Claim 7 is patentable over the cited prior art based upon at least the analysis provided above regarding Saari's failure to teach, suggest, or render

12

obvious the limitations of "classifying the detected data packets" and "assigning the data packets to a network user" as recited in independent claim 7.

Withdrawal of the rejection of claim 7 is therefore respectfully requested.

(E) Conclusion

Based on the above arguments and remarks, Appellants respectfully submit that the claims of the instant invention on appeal are not anticipated or obvious in light of Saari and Schweitzer, either individually or in combination. Consequently, the rejections of the claims based on such references are in error. In view of the remarks submitted hereinabove, the references applied against Claims 1-7 on appeal do not render those claims unpatentable under either 35 U.S.C. § 102(e) or 35 U.S.C. § 103(a). Thus, Appellant submits that the § 102 and §103 rejections are in error and must be reversed.

The Commissioner is hereby authorized to charge any additional fees or credit

any overpayment in connection herewith to Deposit Account No. 19-1013/SSMP.

Respectfully submitted,

Katherine R. Vieyra
Registration No. 47,155

SCULLY SCOTT MURPHY & PRESSER, P.C.
400 Garden City Plaza, Suite 300
Garden City, New York 11530
(516) 742-4343

KRV:vh
Enclosures: Appendices

VIII. CLAIMS APPENDIX

1. (Rejected) A method for cost accounting of data usage over a network by network users, the network having a plurality of internal IP addresses and access to a plurality of external IP addresses over the Internet, the method comprising the steps of:

(a) detecting data packets having a source and destination IP address moving over the network;

(b) classifying the detected data packets based on the source and destination address;

(c) assigning the classified data packets to a network user;

(d) costing the classified data packets based on a predetermined costing scheme; and

(e) accumulating and storing the costed data packets based on the assigned user.

2. (Rejected) The method of claim 1, wherein step b) of classifying the detected data packets includes in one of at least the following four categories:

internal IP address to internal IP address;

internal IP address to external IP address;

external IP address to internal IP address; and

external IP address to external IP address.

3. (Rejected) The method of claim 1, wherein step c) of assigning the classified data

15

packets to the network user includes identifying an IP address to a network user based on network log-on data.

4. (Rejected) The method of claim 1, wherein the predetermined costing scheme of step d) includes a costing factor based on the amount of bandwidth utilization at the time the data packet is detected.

5. (Rejected) The method of claim 1, wherein the costing step d) includes a filtering process to exclude certain predetermined data packets from the costing step.

6. (Rejected) The method of claim 1, further including the step of transferring the accumulated and stored costed data packets to a host computer over the Internet.

7. (Rejected) A programmable device for cost accounting of data usage over a network by network users, the network having a plurality of internal IP addresses and access to a plurality of external IP addresses over the Internet, the device comprising:

a network controller for interfacing with the network and detecting data packets having a source and destination IP address moving over the network;

a processor having a content-addressable memory, the processor classifying the detected data packets based on the source and destination address and assigning the classified data packets to a network user by matching the source and destination

16

addresses against a cross-reference table of IP addresses to network users stored in

the content-addressable memory, the processor costing the classified data packets

based on a predetermined costing scheme; and

a dynamic random access memory for accumulating and storing the costed

data packets based on the assigned user.

17

IX. EVIDENCE APPENDIX

None.

XI. **RELATED PROCEEDINGS APPENDIX**

None. There are no related proceedings.